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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/089,735      | 04/04/2002  | Guenther Mueller     | 420/50943           | 3056             |

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EXAMINER

GARBER, CHARLES D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2856

DATE MAILED: 05/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/089,735

Applicant(s)

MUELLER ET AL.

Examiner

Charles Garber

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Response to Arguments***

Applicant's arguments filed 5/14/2003 have been fully considered but they are not persuasive.

Applicant argues Neck 13 of the Zuckerwar '378 reference cannot be considered a high pressure adapter connected to an out put of a pistonphone as Examiner indicated in the rejection. Examiner does not agree. Zuckerwar explains that in operation volume of air displaced by the vibrating piston 14 within the volume of neck 13 are equal to the volume of air displaced in the chamber 11 due to the law of conservation of volume. This may only occur if air may not escape from the joined volumes which may only occur if the volumes can maintain pressure. In addition, the device is constructed with heavy walls and seals which would appear to inherently maintain high pressure.

Applicant also argues chamber 11 does not have an expanded adapter opening as Examiner indicated in the rejection. Examiner does not agree. The chamber 11 is shown in figure 1 with a narrow top that attaches to the neck 13 by a hose 17 and a wide open bottom that interfaces with knife edge 18. The transition from narrow top to wide open bottom is equivalent to an expanded adapter opening.

Applicant further argues the neck 13 does not have a quarter wave resonator. A quarter wave resonator according the Applicant's specification "is embodied as a tube with a constant diameter." In fact, a fuller definition known to those with ordinary skill in the art would be simply a tube with a constant diameter, closed at one end and open at the other end. The neck 13 is shown in figure 1 as a tube with a constant diameter

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opened at the bottom where it attaches to chamber 11 and closed at the top by the piston 14. While one might argue the combination of the neck 13 with chamber 11 in the operation configuration is a Helmholtz resonator one could also make the same argument with the device of the instant invention as embodied in the specification figure 1 with the combination of adapter 5 and piston phone volume 5

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Zuckerwar (US Patent 4,445,378).

Zuckerwar discloses an acoustic apparatus including a piston 14 for producing a sound pressure (see abstract and figure 1). The recitation “for calibrating a sound pressure level sensor” has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

Neck 13 is considered equivalent to a high-pressure adapter as in the instant invention. It is shown in figure 1 connected to an output of the pistonphone. The neck is a  $\lambda/4$  resonator as the specification recites that a  $\lambda/4$  resonator is simply “a tube with

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a constant diameter." (see paragraph 0010) The neck is shown in figure 1 having a constant diameter. The neck may amplify the produced sound pressure. Chamber 11 is considered to be equivalent to an expanded adapter as it is shown with an opening with a sealing ring 20. The ring 20 may provide a soundproof connection to the microphone 15 which is sound pressure level sensor. The microphone 15 may be calibrated in the device.

As for claim 2, the neck 13 as shown is a tube and has a length and a constant diameter which may be designated (L) and (d).

As for claim 3, the flexible hose 17 is considered to be substantively equivalent to the mechanical compensation link, which is a simple soundproof connection between the adapter and sensor. The hose 17 would improve the soundproof connection of the neck (high pressure adapter) to the microphone (sound pressure level sensor) as in the instant invention.

Claim 4 is substantively equivalent to claim 1 as discussed above.

Claim 5 is substantively equivalent to claim 3 as discussed above..

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Garber whose telephone number is (703) 308-6062. The examiner can normally be reached on 6:30 a.m. to 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (703) 305-4705. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7725 for regular communications and (703) 308-7725 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.

cdg  
May 28, 2003

HELEN KWOK  
PRIMARY EXAMINER  
